I am very excited to welcome you all to Surfing the Semiosphere, Ecology of Senses, and look forward to working together in Kilpisjärvi.

To make the most of our time together, pleasurable and productive, we need to develop a plan together prior to the fieldweek. Here and now is where we will start.

- It would be great if you could all introduce yourself briefly, what your particular interest is in the theme of our group, your expectations and any initial ideas you may have.
- The general goal of the workweek is to do (outdoor:) fieldwork, exploring, investigating, inventorying meaningful interrelationships in the surroundings of the biological fieldstation, based on biosemiotic principles. The general goal of the preparatory time will be to think about and outline specific field week goals and what would be ideal, practical, and feasible to bring to Kilpisjärvi in terms of equipment. What do we collectively already have, what can we otherwise arrange.
- In addition to our fieldwork, I also suggest we reserve some time for brainstorming and discussion during the fieldweek, to contextualize our fieldwork and so contribute to the larger goals of Biosemiotics, doing a different kind of research and reimagining our worlds in radical new ways. In the coming week I will provide some literature/background to get us started. Any, thoughts, contributions regarding field methods, sensors, Arctic environment or any other topic you think relevant is most welcome.

#### Dear All,

I hope you are all having a wonderful summer, considering or despite the sweltering heat in the northern hemisphere.

Our bioart fieldweek is nearing and it would be great if we can put our heads together to brainstorm and formulate some common goals and a workplan during the upcoming weeks.

Thanks to those of you who already wrote lengthy emails on their interest and expectations; I am looking forward to continue the process.

I am aware that the literature I sent earlier is a lot to go through, but maybe you had some time to skim. The reason why I choose those is to give you an idea of the effort of the biosemiotic research field to bridge the mind/body gap and extend the world of meaning to all organisms. Humans are not lonely at the top, but integrated/embodied in the bigger whole, and the question whether or not we need a brain/central nervous system pops up regularly, when trying to reconfigure (spatial) relationships.

So, here is a bit more on my background, interest and directions I am thinking of....

In a nutshell, my research as an archaeologist has long focused on diversity in human spatial experience and cognition (a fundamental cognitive domain), to understand how people organize their surrounding worlds. Based on my own research of Native American ancestral sites (New Mexico) and literature focused on other parts of the world, I have come to understand that an absolute frame of reference, common in many indigenous cultures, is not used in modern western thinking. My belief is that western spatial thinking abilities are somehow limited in comparison.

Through exploring spatial ontology I began to suspect the richness in multidimensionality, multimodality, and multiperspectival aspects.... Wind is a 'thing' maybe more important that 'things' (topography, architectural elements) that facilitate its movement. Things are different depending to the place of observation. Things can be objects or processes, relationships and movement are key. – it opened my mind to thinking about space differently and biosemiotics provided a framework in which to explore this further.

#### Fast forward

Although trained in, and exited about the possibilities that emerging geospatial methods and technologies had/have to offer, together with some colleagues, we began to think about a different mapping system beyond the Cartesian grid and 'god-view', inspired by wave characteristics that facilitate information flow, communication and informs navigation and movement.

Von Uexkull's Umwelt concept helps to imagine how different wave characteristics and frequencies are used by different organisms beyond human comprehension, and can serve as inspiration for novel mapping systems. For instance, to stay with animals for the moment, the ability of bees to navigate on polarized light. The Vikings 'mimicked' this ability by using icelandic spar to navigate across the ocean. Reindeer seeing UV light; many animals having magnetorecepetive abilities and the possible role of cryptochrome. Introduction of man-made radiation may change all this... (we are polluting our native habitat in many different ways, although we may not be the only species doing that).

There is another reason why we humans are not so special as we think we are and should consider our place in the world more holistically instead of at the top of a hierarchical system.

I was fortunate to study with the late Lew Binford (New Archaeology) who posed that humans were scavengers, like crows and wolves, instead of 'noble' hunters.

We may think that we left that phase behind, but recent research supports Binford's ideas and not just for our ancestors. Unlike other primates, humans seem to have high stomach acidity, much like other scavengers. Meaning, their gut is designed to act as a strong filter for microbial damage (Beasley et.al. 2015).

I am currently on a large farm that produces raw milk dairy products, highly contested and forbidden on many markets, yet it seems are stomach are made for it and as (immersed) humans we probably thrive around and within these diverse microbial communities. By killing off these cultures we do ourselves a disservice. Just like the wind, these cultures hold important messages, maybe we are just facilitators/vessel of the movement of these communities. Scaling up and down, multimodal and multidimensional....

The Arctic landscape offers ample opportunities to explore (and scavenge) the semiosphere....

Lool	king	forward	l to	your	t	houg	hts	and	ic	leas

Best

Judith

I am working both as an independent artist, and academic researcher in London. I have been making work in and around various issues relating to science for around 20 years and spent a great deal of this recent period developing fieldwork and field experiments as artworks, with Office of Experiments, which I founded in 2004. Office of Experiments is a network of researchers who work independently of academic research on projects of shared interest, often without a disciplinary bias. Our current research focuses on 'The Deep Field', a term for addressing artist work out in the field, in which we are very interested. Our website is currently being updated, but more information will be there soon. Aside from that I co-direct a research centre called CREAM at University of Westminster, which is also very interesting.

Before I start delving deeper, I look forward to learn a little more about the 'biosemiotics principles', that I hope will inform my own suggestions for fieldwork experiments. As I am interested in the concept and process of the experimental, including experimental systems (Rheinberger) I need to do this groundwork with these ideas to work out what might be of value to the group, before I suggest anything back to the group. So any further information- authors, artists, talks etc., are my starting point. I look forward to hearing more.

if this helps, I have looked recently at making 'material' or visible in situ, data, using a simple light painting / photographic approach, using seismic data feeds taken from a global sensor array. But I am also interested in the contrast between these high tech and remote human sensors, and the relationship to non-human actors- particularly as they are read with situated knowledge of a place. It is the contrast between what has been called the 'technosphere' and more socially/locally informed readings of nature that work closely with non-human actors around which I think I would like to explore further with others. Scale also interests me, as does the concept of an 'event' structure, a term for a kind of 'time based work' around which much of my work is based. This comes from the work of the late John Latham, a British artist I was in dialogue with.

So, I look forward to sharing with you as much as possible ideas and plans on what I hope to be a very engaging field lab.

With best wishes from the descending chaos of the UK!

Neal

I am an artist and a researcher, and I work mainly in Brussels, but also regularly in Barcelona. I am looking to translate matter, phenomena, and intelligence from nature to (metabolic) artworks. In this frame, I observe raw data from nature, which is programmed, scanned, or streamed to interpret it as information during in-field research phases. I am using several ways to bring out hidden structures in nature by constructing original technological methods to probe the living world and by translating that in artistic creations through sonification, visualization, sculptures, large-scale long-term installations, workshops, lectures and books.

I regularly collaborate with scientists and DIY technologies are often involved in my art. My research navigates between experimental urban horticulture, scientific research and metabolic sculptures,

and my experiments connect living, intelligent systems -as social insects (honeybees) and bacteria- and biotechnology with artistic and technological prototyping and experimentation. My toolset includes microbial life and material science, as well as various measurement and information technologies such as scanning electron microscopes (SEM), sensors, big data cloud storage, signal processing and artificial intelligence. The artworks that result follow a complex work-methodology combining first-hand observation in my rooftop garden lab and -apiary, laboratory probes, and digital monitoring.

For a large part of the past decade I have been growing, hacking, digitizing, building, and thinking about beehives – particularly those in urban areas. This has lead to the bio-art project 'The Intelligent Guerrilla Beehive', which got an Honorary Mention at Ars Electronica 2017, in the Hybrid Art discipline. Collaborating with biologists, designers and engineers, I have been reconceptualizing what a beehive is and what it can be. My experiments connect living, intelligent systems and technology/biosciences with social, architectural and technological prototyping and experimentation. This long-term project has been an incredible source of inspiration for research into issues of ecology, architecture and social sustainability of urban environments, addressing urban ecology, politics, and social systems. My work illustrates radical and necessary ecological searches for sharing urban life.

Complementary to my artistic work, I am a cultural facilitator, curator and educator. I was the (co-) founder of several non-profit art organizations, as Looking Glass, So-on and Okno (1997–2015). For these organisations I was producing several european cultural projects and I through those I was developing a strong national and international cultural network.

I am very much looking forward to the Field-Notes workshop and to get know all of you. Kilpisjärvi looks amazing and it will be a true challenge to surf its ecosystem!

all the best & see you in September,

### AnneMarie Maes

### Dear All,

sorry for my late response. I am back now from travelling and here are some infos & points from me. I haven't read the Biosemiotics papers, yet, and the perspective is relatively new for me, but I am fascinated and be happy to learn more and will read. Recently I read Jakob von Uexkülls Umwelt und Innenwelt der Tiere and was fascinated by the language. It felt a bit like reading Homers Odyssey.

Small introduction on my person:

## Background:

I am a researcher (Paleontologist, Geologist), living in Helsinki and working there as curator of the palaeontological collection of the Finnish Museum of Natural History. I am a specialist on the evolution of ancient cephalopods and published for many years on the topic. My recent interest shifted more generally toward the evolution of ecosytems in deep time. Currently I have a relatively large project on the evolution of the worlds oldest reef ecosystems. Beneath this I have a long standing interest on the history of science and published on aspects of 19th century deep time research. I also write from time to time essays (in German).

### Interests (very general):

Looking at fossils and for fossils is a peculiar perpective on life ... just dead shells, traces, skeletons. Few traces of interactions. This is different from doing gardening, walking through a forest or collecting data from a field.

Fossils are remains of living beeings now stone dead. In a way signs from different worlds. Really? Different worlds? What is gone? What is left, inherited? What do have ancient live-worlds in common with our world? What is present?

Interests (more specific):

- evolution of spatial pattern of habitation and movement of organisms and their boundaries (patches, cluster, piles, herds, flocks, swarms)
- evolution of meaningful interrelationships (intentional versus unintentional encounters (search/find versus roaming/stumbling)
- novelty in evolution (questions of scale and meaning)

# I can bring:

- a Geiger counter, a GPS, a Jacob-staff (clinometer), a compass, a geologist hammer
- a notebook, some skills in R-programming
- probably can arrange geochronological (radiocarbon) dating of some samples after our field-trip

More later,

Björn

Dear all in surfing the semiosphere,

Below my thoughts on what I would like to do while in Kilpisjärvi.

In addition to the below, I would like to pay a visit to the Arctic Sea (and Tromsø), where, on my last trip to Kilpisjärvi, I found a small piece of rock that I have kept with me and with which I have made very meaningful performances around the world. I need to go back to see if there is more for me to find and to thank for the previous gift. I hope this works in relation to the program.

Working with anthropologists in Iceland (Tinna Graetarsdottir and Sigurjon Hafsteinsson, curators in Brazil (Lars Bang Larsen and Jochen Volz), mycologists and biologists in Chile (Barbara Saavedra and Giuliana Furci), and healers and artists (Petra Blomqvist and Erich Berger) in Finland, I have travelled to Ilulissat in Greenland, Saana mountain in Kilpisjärvi in Lapland, Keflavik former NATO base in Iceland, and Karukinka National Park in Tierra del Fuego in Chile. What combines these locations is an energy I have sensed in rock formations in these landscapes. Working with artistic sensibility and learning from other sensibilities (scientific, social, and spiritual), I have documented these energy explorations digitally, ceremonially, and with drawings. Retelling these documentations are sessions of healing, performance, and lecture.

Video: End of World (Karukinka, Chile)

https://vimeo.com/187505587

Video: Search: a) Galgar b) NATO (Keflavik, Iceland)

https://vimeo.com/153038651

# **Background**

One winter, when I was maybe 12 years of age, I was skiing – as usual – through the archipelago in my native country Finland. The landscape fluctuated with small rolling islands and frozen sea. The sky was crystal clear and although it was very blue, glittering beams of lights shot through it and bounced back off the snow. On top of a hill, frozen sea all around me, I was struck how everything was shining and vibrating with the sun beams and the crystallised water. I felt so small and immense at the same time. As if I had evaporated into the energy vibrating around me. I realised how small and insignificant I was, and maybe precisely because of this I realised how thrilled I was to be a part of this magnificent beauty. On that spot, it did not matter if I lived or died.

In recent years, I have made more explorations with this sentiment. I roam landscapes, listen, look (often seeing with eyes out of focus), close my eyes, dream, and open eyes again. Sometimes I walk, run, crawl, jump, swim. Sometimes with a camera moving with me. But that happens mostly only after I have realised that there is something going on in a place. A rock formation, a sigh, an opening, embrace, or singing in the landscape.

I then take the camera with me, to be a recording eye. Because I feel like the rocks, the earth, the sky, open up with full throttle and even though I suck in as much as my senses and brain possibly can, I still cannot see enough. I feel, though. And I feel long after the encounter, too. I can ask this feeling to show me – ... and images, movements, or sounds emerge, not as recordings, but more like various decodings of the same energy transforming to each new expression.

I try to move with the energy of the space. The camera is part of that movement, not a separated recorder, but an active sensing agent, with me.

Perhaps what I encounter are openings that release earth's energies. These encounters activate both the land/rock formation and me. I am thankful for being discovered by this energy, over and over again.

In other places, it seems something has happened, maybe during the era of humans or maybe much earlier. On a molecular level, events may stay recorded as resonance in trees and rocks. Tension, sorrow, joy.

Pia

Dear Judith and all,

first of all I have to apologize for my very late response, I was tied up in a project over the entire summer

I want to say how glad I am for the selection and I'm already looking forward to our time in Kilpisjärvi.

I work both as freshwater ecologist and visual artist, and academic researcher in Linz, Austria. For the last years my artistic work embraces topics around water and especially the relationship between rivers and their inhabitants. Starting from the so called "human factor" I developed approaches towards more balanced observations of the entire aquatic ecosystem.

Since 2016 I travel along rivers to develop and test these approaches, the last two years I worked on the Mississippi and the Danube river. My aim is to compare ecological developments with socio-cultural phenomena and how we could redefine them. First results of this research are the artist book "From Mud To Outer Space", which links the river to literature genres and a river laboratory in the city of Linz. This lab focuses on the Danube river and is called "Be Water My Friend" (https://cargocollective.com/christinagruber/Be-Water-My-Friend)

I started out as a landscape architect by training. Due to that the "genius loci" and the history of a place are extremely relevant to me and always form the base of my investigations. As scientific researcher I focus on environmental history and geomorphological reconstructions, my main research topic are historical river reconstructions with special focus on phyto-, zooplankton and fish ecological changes.

SURFING THE SEMIOSPHERE: as the profile picture of our group are Daphnia I was immediately interested in the topic, as I work with them already for years in various settings and still they embody a certain kind of mystery to me. I touched biosemiotics briefly for the first time a year ago, when I was working on a piece for an exhibition called "Translating the Animal" curated by Melody Owen. Using the DNA sequence of a rainbow trout and video footage of the McCloud River, where this species originates from, the work dealt with the hidden intersections and signs we often oversee. Further on it is about a story of globalization as the rainbow trout occurs almost around the entire globe, despite Antarctica.

For me the interest in this group is exactly this intersection of disciplines and drawing relations to things that seem not connected in the beginning. Uncovering layers and strata of previous times and searching for new ways of expressing ecosystem relations.

## **Equipment-wise I can bring:**

Underwater camera, Underwater microphone Tripod Audio recorder for field recordings Water quality testing kit

#### Software:

QGIS - geoinformation system alternative mapping methods

I will come back to you with more ideas about specific field goals and I'm very much looking forward to meeting you all, best wishes from Vienna, Christina